

THE PROJECT THAT CHANGES EVERYTHING

Creative projects at every level fuel student learning



BY ERIN PETERSON | ILLUSTRATIONS BY DRUE WAGNER



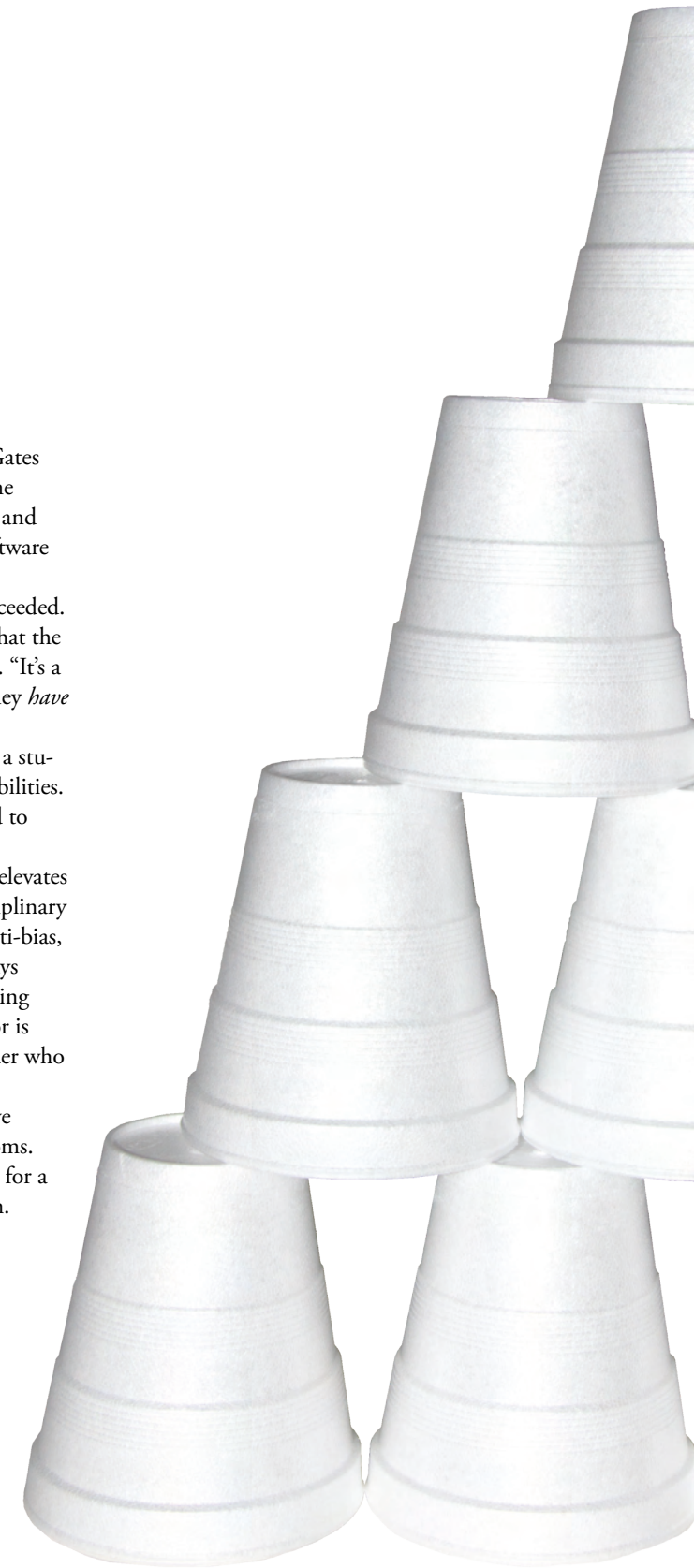
Middle and Upper School visual arts teacher Carey Gates loves to think creatively about how he can use the right projects to teach his students specific skills and concepts, whether that means exploring new software or firing up a 3D printer.

He can always pinpoint exactly when he's succeeded. "There's an 'aha' moment when students realize that the work is something they're excited about," he says. "It's a moment when a project transcends something they *have* to do into something they *want* to do."

A single project in a single class can set fire to a student's imagination and expand her sense of possibilities. And it's this work that Kent Place has committed to pursue more vigorously within its strategic plan.

"Learning with Purpose is exciting because it elevates priorities that we've had for years, from interdisciplinary learning to STEM learning, while prioritizing anti-bias, anti-racist, and culturally responsive learning," says Julie Gentile, Assistant Head of School for Teaching and Learning. "And the outcome we're hoping for is that every student is a confident, intellectual leader who thinks critically and ethically."

We asked 11 teachers to talk about the creative projects that inspire the students in their classrooms. We think they might just make you wish that — for a moment, at least — you could be a student again.

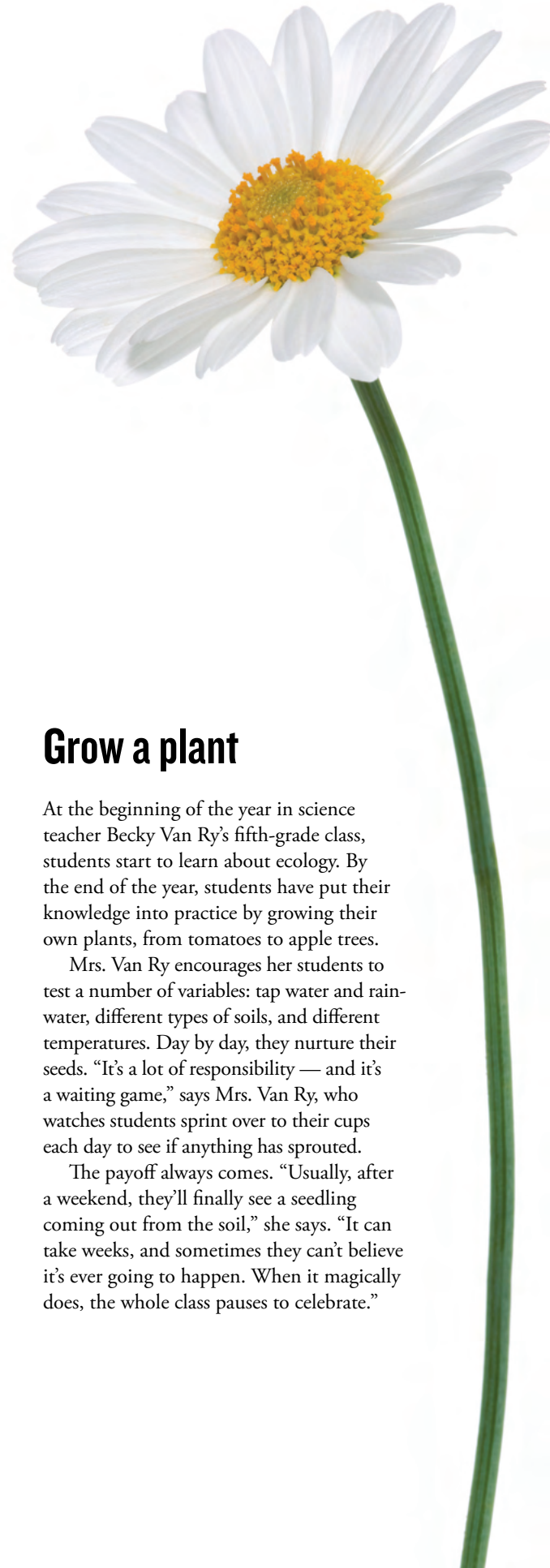


Make a solar oven

What's better than making s'mores at school? Making s'mores at school in a solar oven you've researched, designed, and built yourself! That's the task for fourth-grade students in Sue Tracy P '29's computer science and engineering class. And they learn about culture, coding, and green engineering along the way.

As part of the two-month project, students learn about a girl from Botswana who uses a solar oven to cook for her family, they design a computer game that nudges players to make environmentally sound decisions in their daily lives, and they build a solar oven. The weeks of work — carefully testing and applying their learning — culminate with students making s'mores in their ovens. (And of course devouring them.)

Although all of these concepts could be taught on their own, Mrs. Tracy says the cohesiveness is what makes a difference. "Learning in 'silos' doesn't give students the same sense of relevance," she says. "When students see information that's connected, that's what makes it stick."

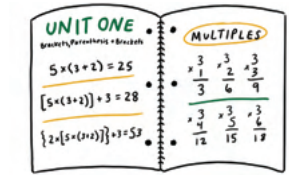


Grow a plant

At the beginning of the year in science teacher Becky Van Ry's fifth-grade class, students start to learn about ecology. By the end of the year, students have put their knowledge into practice by growing their own plants, from tomatoes to apple trees.

Mrs. Van Ry encourages her students to test a number of variables: tap water and rain-water, different types of soils, and different temperatures. Day by day, they nurture their seeds. "It's a lot of responsibility — and it's a waiting game," says Mrs. Van Ry, who watches students sprint over to their cups each day to see if anything has sprouted.

The payoff always comes. "Usually, after a weekend, they'll finally see a seedling coming out from the soil," she says. "It can take weeks, and sometimes they can't believe it's ever going to happen. When it magically does, the whole class pauses to celebrate."



Keep a notebook to record academic growth

Fifth-grade math teacher Sally Snyder expects all of her mathematicians to maintain a dedicated notebook. It's there that they store handouts, keep notes about mathematical concepts, reflect on the lessons, and make connections among the different ideas they've explored.

Students use the notebook almost daily, but they often find its true value when they return to their work months or even years later — it's a tangible object that verifies their intellectual advancement. "Some of the older students have come back and told me they still have their math notebook and still refer to it," Mrs. Snyder says. "It can be a really useful tool."

Craft a Shakespeare-themed Broadway *Playbill*

As part of a collaboration with theater teacher Keri Lesnik, English teacher Susan Mascioli's fifth-grade students work on an ambitious Shakespeare unit that culminates (during non-pandemic times) with a live Shakespearean performance complete with a custom-designed *Playbill*. While Ms. Lesnik helps students focus on the acting, Mrs. Mascioli provides context for the challenging material so they can understand the plot, the history, and the language of a centuries-old play.

To create the *Playbill*, which is distributed to family members at the performance, Mrs. Mascioli's students provide all the traditional components of the beloved publication with personal twists, such as covers they've designed themselves and advertisements written in Elizabethan English. "Our artists can really shine," Mrs. Mascioli says. "It's a great complement to the performance."

MIDDLE SCHOOL

Turn candy and cups into equations

Math might have the reputation as a whiteboard-only subject, but Middle School math teacher Alicia Rodriguez loves to find ways to bring abstract concepts into the real world. Students stack plastic cups as high as they can to internalize how linear equations work; they record themselves hurling candy across a giant sheet of graph paper to study parabolas. “Every crazy lesson is always followed up with the procedures and the application of *why*,” she says. “I want them to think, to process, and to wonder.”



Write your own “educational utopia” story

When the science-fiction writer Isaac Asimov dreamed up what school might look like in the year 2157 for his short story “The Fun They Had,” the computer-based homeschooling the author describes turns out to feel surprisingly familiar to pandemic-fatigued students who read the story in Amanda Freiler’s sixth-grade English class.

By the end of the year, Ms. Freiler’s students aren’t just reading about fictional worlds — they’re creating their own. They spend the final few weeks of the year plotting a story set in an educational utopia or dystopia.

Students imagine spy schools and interplanetary classrooms, some of which resemble KPS; characters compete at sports and contemplate gender roles. But no matter the setting, Ms. Freiler says, the stories are often surprisingly revealing. “I want my students to express not only what they’ve learned, but also who they are,” she says.

To help students maintain enthusiasm for the project even beyond the last day of school, Ms. Freiler asks them to end their story on a cliffhanger. She gathers all the projects into a Google Doc, so they can continue writing their story over the summer or read what their classmates have written. “Stories like this give students freedom to follow their creativity and passions, whether they’re about sports, other planets, living underwater, or the future,” she says. “They realize that they’re the experts: they’re the authors now.”



Design an amusement-park ride

As part of science teacher Wendy Hall P ’25’s eighth-grade astrophysics unit, students learn about physics concepts ranging from gravity to centripetal force — phenomena that make the planets orbit the sun, for example.

Then she takes those otherworldly concepts and brings them down to Earth quite literally: she has students use these principles — which apply to our home planet, too — to design their own unique amusement-park rides.

They dream up rides that whirl and dip and cars that clunk down peg-filled platforms like Plinko chips. One year, students imagined a ride that would slingshot riders back and forth

through the air. (“We’re a little loose on safety regulations,” Ms. Hall says, joking.)

In teams, the students write up proposals and create scale drawings of their rides. Then Ms. Hall hands them the power tools, such as saws and drills, to turn those drawings into small-scale models. They use PVC pipes and wood blocks and funnels to create mind-bending rides that might seem right at home at Six Flags.

By the end, they’ve covered the equivalent of three units in a textbook — but they haven’t had to sit still for a moment. “They’re out of their seats, and they’re never bored,” Ms. Hall says. “It’s a six-week unit, but I could probably teach it all year.”

UPPER SCHOOL

Bring academic insight into front-page news

As part of Dr. Rashied McCreary P '29 '34's Black studies class, the students investigate historical documents representative of different viewpoints, then critically analyze them to develop their own opinion.

For example, this past year students read "The 1619 Project," a work of Pulitzer Prize-winning journalism published in 2019 that reexamines the legacy of slavery, and then read what appeared to be a direct response to the document: a 41-page report released by the Trump White House produced by an advisory committee dubbed the 1776 Commission.

For Dr. McCreary, the report proved to be an unexpected opportunity to bring academic context to the firestorm. "No matter how you feel about it, the 1776 Commission report was a major response: it came out of the White House, and that has a lot of weight," he says.

Students discussed both, then wrote research papers that compared and contrasted "The 1619 Project" with the 1776 Commission report.

Steeped in those primary documents, students were able to provide their own critical analysis. "This is what academics do: we take in as much information as possible so we can illuminate our understanding of different positions," Dr. McCreary says. "This is a project that doesn't just breathe life into history; it also helps us understand how we live through history."



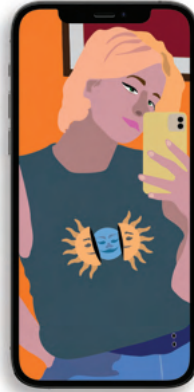
Create a custom lock screen

Middle and Upper School visual arts teacher Carey Gates wanted his ninth-graders to learn the basics of programs such as Adobe Illustrator and understand some of the intricacies of vector graphics, and as he cast about for ways to make these skills feel relevant to 14-year-olds, he landed on the most irresistible things they own: their smartphones.

"What's cooler than hanging out with your friends and having one ask where you got your lock screen and to be able to say 'I didn't get it anywhere, I made it,'" Mr. Gates says.

Over the course of a handful of classes, Mr. Gates teaches his students how to use colors, shapes, and gradations in Illustrator.

Many students see that there's a whole world beyond lock screens where they can apply the techniques they've just learned. "You can use the software to design the stickers you put on your laptop or design your own T-shirt logo," says Mr. Gates. "They realize there are all sorts of ways that they can use software and their skills."



Perform poetry and inspire sisterhood

When Poetry Out Loud students take center stage to recite a poem for a school assembly or at a regional competition, they draw on their skills of memorization, breath coordination, presence, and articulation. But to succeed, says advisor and English teacher Kimberly Lee, they must find an emotional connection to the poem. "If it doesn't move you, there's no way you can move the audience," she says.

Since launching the Poetry Out Loud program at KPS, in 2018, our Upper School students have competed at regional and state events, reciting works from poets ranging from Walt Whitman, to Jane Kenyon, to Li-Young Lee.

Ms. Lee notes that students don't just compete at the highest levels — they also bring their carefully honed skills to younger audiences. Poetry Out Loud students have performed and coached younger students through partnerships with fifth-grade teachers Susan Mascioli, Joanne Emery, and Sally Snyder, as well as Kindergarten teacher Maria Diamond.

"Having our Upper School students work with Primary School students — living communal sisterhood — has been really valuable," Ms. Lee says. "Poetry brings people together."



Prepare your body for optimal performance

Physical education teacher and Health and Wellness Chair Michelle Stevenson knows that some of the most important days for Kent Place students are already marked on the calendar: high-level competitions and performances, big tests and presentations. Mrs. Stevenson believes it's crucial for students to manage not just their minds at these critical moments, but their bodies as well.

As part of a project she's building with STEM Innovation, Computer Science, and Mathematics Chair Dr. Evelyn Hanna P '30, students fabricate their own heart-rate monitor to take regular measurements of their body — from heart rates to simulated EKGs — to understand when their body is stressed, when they can push themselves harder, and when they might need to back off to prevent injury or illness.

After taking baseline numbers, students track a few measurements each morning to determine if their readings fall into a green, yellow, or red category. Mrs. Stevenson says the measurements can help coaches provide more individualized workouts for athletes who need a recovery day or would benefit from a hard training day; other students find it helpful to understand their stress levels as they prepare for a challenging academic moment.

The goal is for students to begin to know themselves so well that they can intuit where their body is, even without the data. "When you start, you can't always connect the numbers to what your body is feeling," Mrs. Stevenson says. "But over time, you get to know it — you can actually start to feel it."

! Please tell us about a project you remember from your time at Kent Place and the impact it had on you. Email communications@kentplace.org.